Quiz One Name: _____
PPA 723, Fall 2006
Professor John McPeak

The total quiz is worth 20 points. Each question is worth 2 points, and each sub question is worth an equal share of the two points.

1) The demand curve is given to you as Q=80-15*p.
    a. Fill out the following table (use the relatively higher price / relatively lower quantity pair in the elasticity calculation).

Price	Quantity	Elasticity
$1.00		----------
$2.00		
$3.00		
$4.00		
$5.00		

    b. Draw this demand curve with price on the y-axis and quantity on the x-axis. Identify the range over which the demand curve is inelastic and over which it is elastic.

2) Taxes. In all cases, describe the original pre-tax equilibrium price quantity pair, and following imposition of the tax the price paid by consumers, the price received by producers, the size of the tax revenue, and the quantity supplied / demanded.
    a. Illustrate on a graph the impact of a specific tax placed on producers.

    b. Illustrate on a graph the impact of a specific tax placed on consumers.

    c. Illustrate on a graph the impact of an ad valorem tax placed on consumers.

3) You are given that p=500-40*q is the inverse demand curve and p=100+60*q is the inverse supply curve.

a. What is the equilibrium price quantity pair if the market is perfectly competitive?

b. Illustrate the effect of a price ceiling set at $280 on the graph.

c. Describe the outcome of this policy in terms of quantity supplied and quantity demanded. If there is excess supply or excess demand, describe the size of it in terms of the quantity of the shortage or surplus (calculate numbers here).

4) A local ski area is considering raising the price of an annual pass from $1,000 to $1,250. If the number of annual passes sold is 20,000 and the best available information suggests that the price elasticity of demand for annual passes is -1.5, answer the following questions.

a. What is the predicted membership level after the price is raised?

b. Compare total revenue for the ski area at the annual pass fee of $1,000 and at the price of $1,250. Which is higher?

c. Will a price decrease for the annual fee to $900 from $1,000 raise or lower annual revenue from the baseline of $1,000 and 20,000 passes? By how much?

5) I know the price of pumpkins is $4.00 per unit and the price of cider is $4.00 per unit, the marginal utility of pumpkins at a bundle the consumer is considering buying is 3 and the marginal utility of cider is 4. This bundle is on the budget line.

   a. Explain why the bundle the consumer is considering buying is not the optimal bundle.

   b. Is the optimal bundle going to be composed of more pumpkins and less cider or more cider and less pumpkins than the bundle under consideration? Why?

   c. Show on graph that illustrates sample indifference curves and a budget constraint where the consumption bundle described in the introduction to this problem lies in relation to the optimal bundle.

6) If $p_1 = 5$, $p_2 = 10$, and $Y = 200$
   a. Draw the budget constraint.

   b. Show how you can derive the price consumption curve for a given consumer's preferences (drawn as you like so long as they obey the properties of indifference curves discussed in class) from the price consumption curve using the example of $p_1 = 2$ all else constant, and $p_1 = 10$ all else constant

   c. Show how to derive the individual's demand curve from the graph in (b).

7) Circle whether the statement is true of false:

a. A change in consumer income causes a shift in the demand curve.

TRUE FALSE

b. A good for which there is an inelastic price elasticity of supply has a smaller percent change in quantity than the corresponding percent change in price.

TRUE FALSE

c. Indifference curves cross when the individual views the two goods in question as normal goods.

TRUE FALSE

d. In a two good world, both goods must be inferior to avoid violating the "more is better than less" assumption about preferences.

TRUE FALSE

e. Indifference curves shift outward when a consumer's income increases.

TRUE FALSE

f. The slope of the indifference curve reflects the willingness of the individual to trade off a given amount of one good to obtain a given amount of another good

TRUE FALSE

8) A food stamp policy is put in place in a state. For our representative consumer impacted by this policy, their initial income of Y is supplemented by a cash value of food stamps of $50. The initial budget constraint is $y = p_f \cdot f + p_o \cdot o$, where f is food, o is all other goods, and the two prices are subscripted by their commodity.

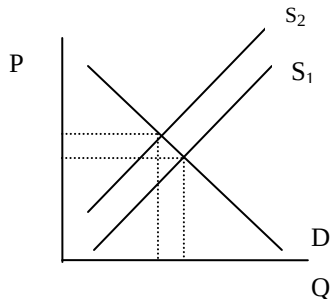
   a. Draw the original budget line and the budget line after the food stamp policy is implemented.

   b. Illustrate on another graph the indifference curves for a consumer for whom it does not matter whether he is given $50 in cash or $50 worth of food stamps in terms of the optimal bundle he will consume after being given the food stamps.

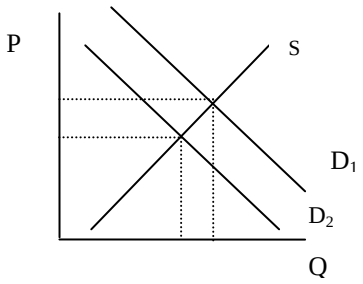
   c. For your graph in (b), does MRT = MRS at the optimal bundle or not? Explain why it does or does not.

9) The good in question is number of places at area day care centers. Provide a (no more than 2 sentence) story for each of the following shifts that could explain what has changed in the real world to bring about such a shift. In answering this question, you are making a story up that would lead to the observed change.

a. What could have caused the shift from S_1 to S_2?



b. What could have caused the shift from D_1 to D_2?



10) The price of ballet shoes is 40% higher this year than at the same time last year. Bella Ballerina is claiming credit, as her DVD teaching kids how to dance ballet was released last year and has sold millions of copies over the past 12 months. Her friend, the cheeky monkey Max, says her argument is nonsense. He argues the price of ballet shoes went up since labor costs in China, where the shoes are made, increased dramatically over the past 12 months.

a. Graph Bella's argument on a supply and demand graph.

b. Graph Max's argument on a supply and demand graph.

c. Which explanation is more consistent with the facts if the quantity sold of ballet shoes also increased by 4%? Justify your answer.